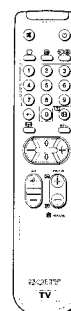
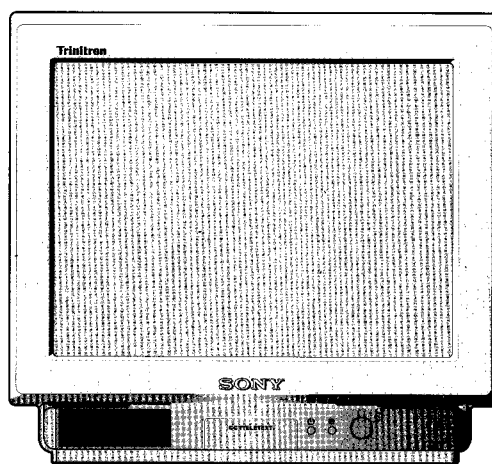


# BE-4A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-M2170A	RM-836	Italian	SCC-J05B-A	KV-M2170K	RM-836	OIRT	SCC-J03B-A
KV-M2171A	RM-836	Italian	SCC-J05A-A	KV-M2171K	RM-836	OIRT	SCC-J03A-A
KV-M2170B	RM-836	French	SCC-J06A-A	KV-M2171KR	RM-836	Russian	SCC-J03C-A
KV-M2171B	RM-836	French	SCC-J06B-A	KV-M2170L	RM-836	Irish	SCC-J02B-A
KV-M2170D	RM-836	AEP	SCC-J08A-A	KV-M2171L	RM-836	Irish	SCC-J02A-A
KV-M2171D	RM-836	AEP	SCC-J08B-A	KV-M2170U	RM-836	UK	SCC-J01B-A
KV-M2170E	RM-836	Spanish	SCC-J04B-A	KV-M2171U	RM-836	UK	SCC-J01A-A
KV-M2171E	RM-836	Spanish	SCC-J04A-A				



TRINITRON® COLOR TV  
**SONY®**



ITEM	MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20 UHF: E21-E69		PAL
French	B/G/H, L	VHF: E2-E12, S1-S20, S21-S41, F2-F10, B-Q UHF: E21-E69, F21-F69		PAL, SECAM
AEP	B/G/H	VHF: E2-E12, S1-S20, S21-S41 UHF: E21-E69		PAL, SECAM
Spanish	B/G/H	VHF: E2-E12, S1-S20, S21-S41 UHF: E21-E69		PAL
OIRT Russian	B/G, D/K	B/G VHF: E2-E12 UHF: E21-E69 Hyper: S1-S41 (KV-M2170K/M2171K) Super: S1-S20 (KV-M2171KR) D/K VHF: R01-R12 UHF: R21-R69		PAL, SECAM NTSC3.58/4.43 (video input only)
Irish UK	I	VHF: A-J (KV-M2170L/M2171L) UHF: 21-69 Hyper: S1-S41 (KV-M2170L/M2171L)		PAL

MODEL	Italian	French	AEP	Spanish	OIRT Russian	Irish UK
Power Consumption	58W	58Wh	58W	58W	58W	75W

## SPECIFICATIONS

Picture Tube      Hi-Black Trinitron  
 Approx. 55 cm (21 inches)  
 (Approx. 51 cm picture measured  
 diagonally)  
 100° -deflection

### Input/Output Terminals

#### [INPUTS]

21-pin connector (CENELEC standard)

- audio / video input
- RGB input

#### [OUTPUTS]

Ω Headphone jack : minijack

Sound output      4W (RMS)  
                          5W (music power)

Dimensions      513x475x475 mm approx.

Weight      Approx. 21.0kg

Supplied accessories      RM-836 Remote Commander (1)  
                                  IEC designated batteries (2)

Other features      TELETEXT (KV-M2171A/M2171B/M2171D/M2171E/M2171K/M2171KR/M2171L/M2171U)


## [RM-836]

Remote control system    infrared control  
 Power requirements        3V dc (2 batteries) R6 (size AA)  
 Dimensions                    Approx. 210x45x24 mm (w/h/d)  
 Weight                         Approx. 90g (Not including batteries)

Design and specifications are subject to change without notice.

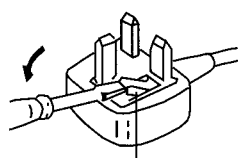
Model name Item	KV-M2170A KV-M2171A	KV-M2170B KV-M2171B	KV-M2170D KV-M2171D	KV-M2170E KV-M2171E	KV-M2170K KV-M2171K KV-M2171KR	KV-M2170L KV-M2171L KV-M2170U KV-M2171U
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF
PIP	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	ON	ON	ON	ON	ON	ON
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	OFF	OFF	OFF	OFF	OFF	OFF
Front in (3)	OFF	OFF	OFF	OFF	OFF	OFF
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	OFF	OFF	OFF	OFF	OFF	OFF
Norm B/G/H	ON	ON	ON	ON	ON	OFF
Norm I	OFF	OFF	OFF	OFF	OFF	ON
Norm D/K	OFF	OFF	OFF	OFF	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	OIRT	English

### WARNING ( KV-M2170L/M2171L/M2170U/M2171U only )

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the  mark.

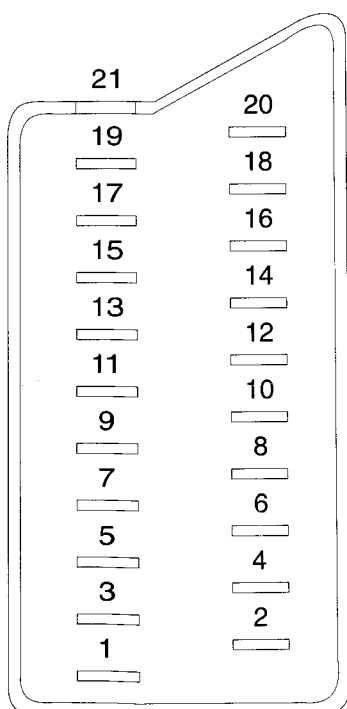
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.  
 Open the fuse compartment with the screwdriver blade and replace the fuse.

## 21 pin connector ( ②-1 )



Pin No		Signal	Signal level
1	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance: less than 1kohm*
2	○	Audio input B (right)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
3	○	Audio output A (left)	Standard level: 0.5Vrms Output impedance: less than 1kohm*
4	○	Ground (audio)	
5	○	Ground (blue)	
6	○	Audio input A (left)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
7	○	Blue input	0.7V±3dB, 75ohms, positive
8	○	Function select (AV control)	High state (9.5—12V): Part mode Low state (0—2V): TV mode Input impedance: More than 10kohms Input capacitance: Less than 2nF
9	○	Ground (green)	
10	○	Open	
11	○	Green	Green signal: 0.7V±3dB. 75ohms, positive
12	○	Open	
13	○	Ground (red)	
14	●	Ground (blanking)	
15	○	Red input	0.7V±3dB, 75ohms, positive
	—	(S signal) chroma input	0.3V±3dB, 75ohms, positive
16	○	Blanking input (Ys signal)	High state (1—3V) Low state (0—0.4V) Input impedance: 75ohms
17	○	Ground (video output)	
18	○	Ground (video input)	
19	○	Video output	1V±3dB, 75ohms, positive Sync: 0.3V(—3, +10dB)
20	○	Video input	1V±3dB, 75ohms, positive Sync: 0.3V(—3, +10dB)
	—	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync: 0.3V(—3, +10dB)
21	○	Common ground (plug, shield)	

○ Connected    ● Not Connected (open)    \* at 20Hz - 20kHz

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<u>Section</u>	<u>Title</u>	<u>Page</u>
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	TV Operations .....	8
	Adjusting the picture and sound .....	8
	Menu Operation .....	9
	Advanced Presetting Functions .....	10
	Teletext Operation .....	11
	Optional Connections .....	12
	Additional Information .....	12

**CAUTION**

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

**ATTENTION**

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.


**WARNING !!**

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.  
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.


**ATTENTION !!**

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

**SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

**ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!**

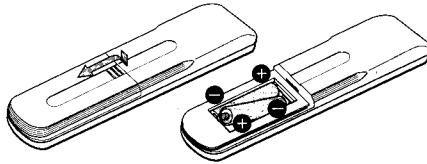
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDICÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

## SECTION 1 GENERAL

### Getting Started

#### Step 1

#### Inserting the Batteries into the Remote Commander



#### Step 2

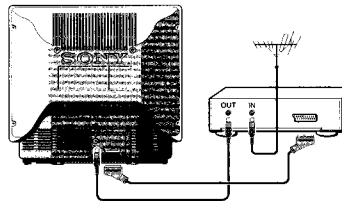
#### Connecting the Aerial

If you connect a VCR, skip to step 3.

Connect an external aerial to the socket .

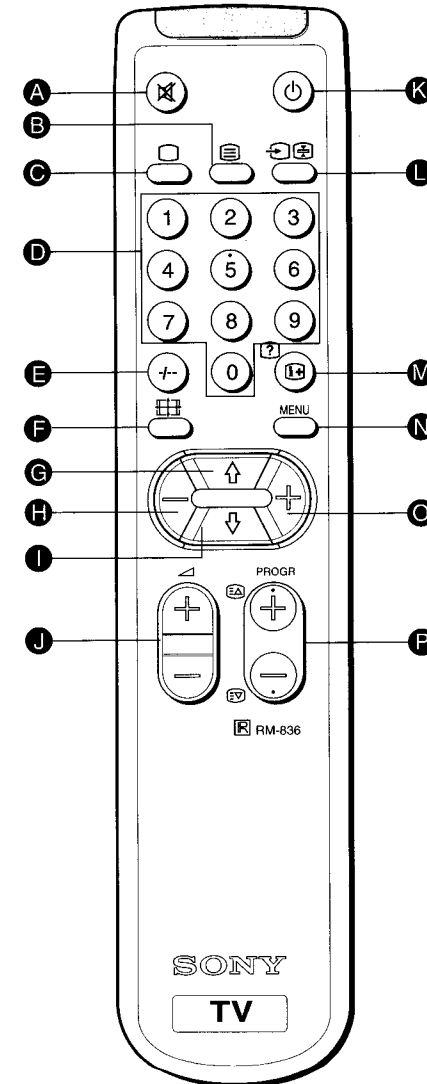
#### Step 3

#### Connecting a VCR



It is recommended to tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 12.

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

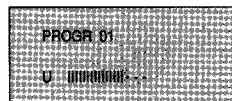


## Step 4

### Presetting Channels Automatically

TV searches for all available channels. If manual tuning is preferred see Menu option - Presetting Channels Manually.

- 1 Plug into mains.  
Press power switch **⏻** on TV set.
- 2 Press and hold **▶▶** **S** on TV set for 2 seconds.  
Auto tuning starts and screen shows.



- Notes**
- When Auto tuning stops the programme on position 1 is seen.
  - KV-M2171U/M2171L only – channels are automatically stored as follows:

KV-M2171U	KV-M2171L
Programme 1 BBC1	RTE1
Programme 2 BBC2	RTE2
Programme 3 ITV	BBC1
Programme 4 CH4 or S4C	BBC2
Programme 5 –	ITV
Programme 6 –	CH4 or S4C

## TV Operation

### TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the Remote Commander.

To	Press
Switch on	<b>⏻</b> <b>W</b> on TV
Switch off temporarily	<b>⏻</b> <b>K</b> <i>TV is now in standby mode, <b>⏻</b> indicator <b>V</b> on TV lights.</i>
Switch on again	<b>⏻</b> <b>C</b> , <b>PROGR +/-</b> <b>P</b> <b>U</b> or any number button <b>D</b>
Switch off completely	<b>⏻</b> <b>W</b> on TV <i>To save energy we recommend switching off completely when TV is not in use.</i>
Select programmes	<b>PROGR +/-</b> <b>P</b> <b>U</b> or number buttons <b>D</b> <i>For double digit numbers press <b>-/--</b> <b>E</b> then the number e.g. For 23, press <b>-/--</b> <b>E</b> then 2 and 3.</i>
Display the programme number	<b>⏻</b> <b>M</b> <i>Press again to make programme number disappear.</i>
Adjust the volume	<b>⏻</b> <b>+/-</b> <b>J</b> <b>T</b>
Mute the sound	<b>⏻</b> <b>A</b> <i>Press again to restore sound.</i>
View video input	<b>⏻</b> <b>L</b> <b>R</b> <i>Press again to return to TV programme.</i>
View programmes in 16:9 mode	<b>⏻</b> <b>F</b> <i>Press again to return to 4:3 mode.</i>

## Teletext Operation (only for KV-M2171U/M2171L)

### Viewing Teletext

Teletext is an information service broadcast by TV stations.

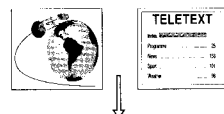
- 1 Select the channel which carries the teletext service you wish to receive.
- 2 Press **⏏** **Ⓟ** to switch on teletext.
- 3 Input three digits for the page number using the programme number buttons **0-9** or **PROGR +/-** **Ⓟ**.
- 4 Press **⏏** **Ⓞ** to switch off teletext.

**Note** • Teletext errors may occur if the broadcasting signals are weak.

### Using Other Teletext Functions

#### Superimposing teletext on the TV

Press **⏏** **Ⓟ** once in teletext mode or twice in TV mode to superimpose teletext on the TV screen.  
Press **⏏** **Ⓟ** again to cancel superimposing.



#### Freezing a teletext subpage

Press **⏏** **Ⓛ** (HOLD) to freeze the subpage. Freezing the page prevents the information that is displayed from being updated.  
Press **⏏** **Ⓛ** to cancel HOLD and allow update to continue.



#### Revealing concealed information (eg: answers to a quiz)

Press **⏏** **Ⓜ** to reveal information.  
Press again to conceal the information.

#### Using colour buttons to access pages

When the colour coded menu appears at the bottom of a page, press the colour button (red, green, blue or yellow) **Ⓜ** **Ⓛ** **Ⓛ** **Ⓞ** to access the corresponding page.

**Note** • A programme status message in a blue box may appear when you change programmes (depends on broadcasters).

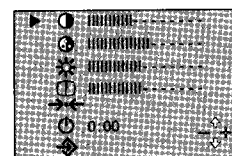
## MENU Operation

Use buttons on Remote Commander to control Menu screen.

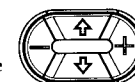


**MENU** **Ⓝ**  
Menu Screen  
on/off

**Green** **Ⓞ**  
scroll up



**Red** **Ⓜ**  
decrease



**Yellow** **Ⓞ**  
increase/confirm(OK)

**Blue** **Ⓛ**  
scroll down

### Adjusting the Picture

- 1 Press **MENU** **Ⓝ**.
- 2 Press green **Ⓞ** or blue **Ⓛ** button to select the item you wish to change.

Symbol	Item	-	Effect	+
Ⓛ	Picture	Less	More	
Ⓞ	Colour	Less	More	
Ⓜ	Brightness	Darker	Brighter	
Ⓛ	Sharpness	Softer	Sharper	

- 3 Press red **Ⓜ** or yellow **Ⓞ** button to change levels.

- 4 Press **MENU** **Ⓝ** to return to normal TV screen.

**Note** • To reset to factory preset picture levels, press green **Ⓞ** or blue **Ⓛ** button to select **↔** and press yellow (OK) **Ⓞ** button.

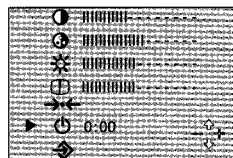


## Using the Sleep Timer

The TV may be set to switch to the standby mode automatically after a length of time chosen by you. You may set the time in 30 minutes steps up to 4 hours.

1 Press MENU **N**.

2 Press green **G** or blue **I** button to select **⏻**.



3 Press red **H** or yellow **O** button to set time delay.  
0.00 (OFF) 0.30 1.00 1.30 .... 4.00

4 Press MENU **N** to return to normal TV screen.  
When watching TV, press **⏻** **M** to display time remaining.

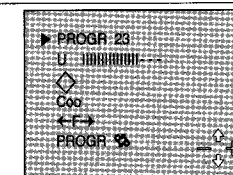
## Presetting Channels Manually

Up to 60 programme positions are available for presetting channels.

1 Press MENU **N**.

2 Press green **G** or blue **I** button to select **↔** and press yellow (OK) **O** button.

3 Select programme number using PROGR +/- **P** **U** or the number buttons **D**.



4 Press green **G** or blue **I** button to select tuning bar (|||||....) and press red **H** or yellow **O** button to start channel search. When a channel is found the tuning bar stops moving and you see the picture.

5 If you want to store, press green **G** or blue **I** button to select **◇** and press yellow (OK) **O** button. If you do not want to store, press red **H** or yellow **O** button to continue search.

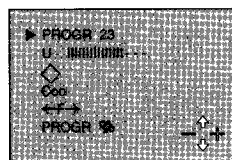
6 Repeat steps 3 to 5 for all other channels.

7 Press MENU **N** to return to normal TV screen.

## Skiping Programme Positions

You can skip unused programme positions when selecting channels with the PROGR +/- **P** **U** buttons. You can still select them, however, using the number buttons **0**.

- 1 Press MENU **N**.
- 2 Press green **G** or blue **I** button to select ⇨ and press yellow **0** button.
- 3 Select programme number you want to skip using PROGR +/- **P** **U** button or number buttons **0**.
- 4 Press green **G** or blue **I** button to select Coo and press yellow (OK) **0** button.
- 5 Press green **G** or blue **I** button to select ◇ and press yellow (OK) **0** button to store.
- 6 Repeat steps 3 to 5 for other unused programme positions.
- 7 Press MENU **N** to return to normal TV screen.

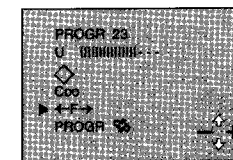


**Note** • To restore a skipped programme number, refer to "Presetting Channels Manually".

## Fine-Tuning Channels

You can fine tune a stored channel if necessary.

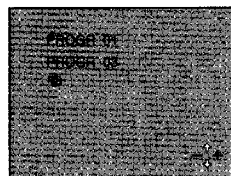
- 1 Select the channel you wish to fine tune.
- 2 Press MENU **N**.
- 3 Press green **G** or blue **I** button to select ⇨ and press yellow (OK) **0** button.
- 4 Press green **G** or blue **I** button to select ⇨F⇨ and use red **1** or yellow **0** button to adjust tuning.
- 5 Press green **G** or blue **I** button to select ◇ and press yellow (OK) **0** button to store.
- 6 Press MENU **N** to return to normal TV screen.



## Exchanging Programme Positions

After tuning you may wish to rearrange the programme positions.

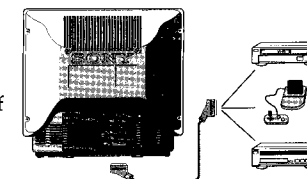
- 1 Press MENU **N**.
- 2 Press green **G** or blue **B** button to select ⇨ and press yellow (OK) **O** button.
- 3 Press green **G** or blue **B** button to select PROGR **W** and press yellow (OK) **O** button.
- 4 Press red **H** or yellow **O** button to select the first programme position.
- 5 Press the blue **B** button.
- 6 Press the red **H** or yellow **O** button to select the second programme position.
- 7 Press blue **B** button to select **W** and press yellow (OK) **O** button to exchange.
- 8 Repeat steps 4 to 7 for other programme positions.
- 9 Press MENU **N** to return to normal TV screen.



## Optional Connections

### Using the 21-pin Connector

Your TV has one 21-pin connector **Y** on the rear of the set. You can connect optional audio or video equipment to this connector, such as a VCR, video games or a video disc player.



- 1 Press ⇨ **L** **R** to view the video input signal.
- 2 Press ⇨ **L** **R** or **O** **C** to return to normal TV screen.

### Connecting Headphones

Plug in the headphones to the **Q** socket on the front of the TV set, then the sound from the speaker is muted.

## Additional Information

### Troubleshooting

Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture, screen is dark, no sound	<ul style="list-style-type: none"> <li>Plug the TV in.</li> <li>Press <b>⏻</b> <b>W</b> on the TV.</li> <li>Press <b>⏻</b> <b>C</b> or the programme number <b>D</b> on the remote commander if <b>⏻</b> indicator <b>V</b> is on.</li> <li>Check the aerial connection.</li> <li>Check that the video source is on.</li> <li>Turn the TV off for 3 or 4 seconds and then turn it on again using <b>⏻</b> <b>W</b>.</li> </ul>
Poor or no picture (screen is dark, sound is good)	<ul style="list-style-type: none"> <li>Press MENU <b>N</b> and adjust brightness picture and colour levels.</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <li>Adjust the volume <b>⏮</b> <b>+/−</b> <b>⏭</b>.</li> <li>Disconnect any headphones.</li> <li>Press <b>⏻</b> <b>A</b> if <b>⏻</b> is displayed on the screen.</li> </ul>
No colour on colour programmes	<ul style="list-style-type: none"> <li>Press MENU <b>N</b> and adjust colour balance.</li> <li>Press MENU <b>N</b> and reset to factory settings.</li> </ul>
Distorted picture when you change programmes or select teletext	<ul style="list-style-type: none"> <li>Turn off the equipment connected to the 21-pin connector <b>Y</b>.</li> </ul>
Remote commander does not function	<ul style="list-style-type: none"> <li>Replace the batteries.</li> </ul>

• If you continue to have these problems, have your TV serviced by qualified personnel.  
 • NEVER open the casing yourself.

### Specifications

#### TV system

I

#### Colour system

PAL

#### Channel coverage

KV-M2170L/M2171L  
 UHF 21-69  
 VHF A-J  
 Hyper S1-S41  
 KV-M2170U/M2171U  
 UHF 21-69

#### Picture tube

HiBlack Trinitron  
 Approx 54.5 cm (21 inches) (Approx 51 cm  
 picture measured diagonally)

#### Inputs

21-pin connector (CENELEC standard)  
 including audio/video input, RGB input

#### Outputs

Headphone jack - minijack

#### Sound output:

4W (RMS)  
 5W (music power)

#### Power consumption

75W

#### Dimensions (wxhxd)

513x475x475mm approx.

#### Weight

21 kg

#### Accessories supplied

RM-836 Remote Commander (1)  
 IEC designated batteries (2)

#### Other features

TELETEXT (for KV-M2171U/M2171L)

• Design and specifications are subject to change without notice.

